

Application No.: 10/735,476

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REMARKS

Claims 1-9 were pending in the present application. Claims 7-9 were withdrawn from consideration. Claims 1 and 6 stand rejected. Claims 2-5 were objected to as being dependent upon a rejected base claim, but deemed allowable if rewritten in independent form.

By virtue of this response, Claim 2 has been cancelled. Claims 1 and 3-5 have been amended. The amendment to Claim 1 is supported, for example, by Figure 1. Claims 3-5 have been amended to make them now depend from Claim 1. Accordingly, Claims 1 and 3-6 are currently under consideration. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. No new matter has been added.

Allowable Subject Matter

The Examiner states with respect to Claims 2-5: “[t]he primary reason for allowability include the structural limitations that the laser section of the first wavelength (real guide structured section –see claim 1) is formed as a ridge portion with a three layer burying structure, the structure including the GaAs, AlGaAs, and insulative dielectric layers as specified, in addition to the other limitations in the claims. The prior art of record pertaining to semiconductor buried ridge lasers having real-guide waveguides generally teaches using a single insulating or semi-insulating layer to bury the waveguides (see for example Abe, Nemoto, US 2002/0185643 to Uchida et al.).” (Office Action, §8, emphasis added)

Claim 1 has been amended to include the GaAs layer and insulative dielectric film originally recited in Claim 2, but not the AlGaAs layer. As shown below, the features in Claim 1 as amended are sufficient to distinguish over the cited art as well as over U.S. Patent No. 6,287,884, which the Examiner alleged was “[t]he closest prior art of record for a multi-layered burying structure.” (Office Action, §8).

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Rejections under 35 U.S.C. § 102

Claim 1 is rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,757,311 to Abe.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 1 USPQ2d 1051, 1053 (Fed. Cir. 1987). Abe does not disclose, and was not alleged by the Examiner to disclose, “[a] monolithic multiple-wavelength laser device comprising a laser section emitting at a first wavelength and a laser section emitting at a second wavelength ... wherein a burying layer on either side of a ridge portion included in said laser section emitting at the first wavelength is formed with a structure comprising a GaAs layer having a thickness of more than 0.03 μ m and less than 0.05 μ m and an insulative dielectric film having a refractive index lower than that of said ridge portion” as recited in claim 1, as amended. As noted above, the Examiner has explicitly acknowledged that Abe teaches using a single layer to bury the waveguide. (Office Action, §8)

Hence, Applicant respectfully requests that the Examiner withdraw the rejection of Claim 1 under 35 U.S.C. § 102(e).

Rejections under 35 U.S.C. § 103Claim 1

Claim 1 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,358,764 to Nemoto in view of U.S. Patent Publication No. 2003/0021320 to Kan.

In order to show a prima facie case of obviousness, each and every feature of the claims must be taught or suggested by the cited references. See MPEP §2143.03. Neither Nemoto nor Kan disclose, nor did the Examiner allege that they disclose, the features of the burying layer recited in Claim 1, as amended, and quoted above in the discussion of the rejection under 35 U.S.C. § 102(e).

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As noted above, the Examiner has explicitly acknowledged that Nemoto teaches using a single layer to bury the waveguide. (Office Action, §8).

Hence, Applicant respectfully requests that the Examiner withdraw the rejection of Claim 1 under 35 U.S.C. § 103(a).

Claim 6

Claim 6 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Abe in view of U.S. Patent Publication No. 2003/0043875 to Gen-Ei et al.

Gen-Ei et al. does not cure the deficiencies, described above, of Abe with respect to the patentability of Claim 1, as amended. Hence, Applicant respectfully requests that the Examiner withdraw the rejection of Claim 6 under 35 U.S.C. § 103(a).

U.S. Patent 6,287,884 to Jie

The Examiner alleges that “[t]he closest prior art of record for a multi-layered burying structure is U.S. Patent No. 6,287,884 to Jie, which teaches a two-layer burying structure including a semiconductor layer with a dielectric layer disposed thereon.” The Examiner did not identify the alleged “two-layer burying structure.”

Jie does not disclose, and was not alleged by the Examiner to disclose, “[a] monolithic multiple-wavelength laser device comprising a laser section emitting at a first wavelength and a laser section emitting at a second wavelength ... wherein a burying layer on either side of a ridge portion included in said laser section emitting at the first wavelength is formed with a structure comprising a GaAs layer having a thickness of more than 0.03 μm and less than 0.05 μm and an insulative dielectric film having a refractive index lower than that of said ridge portion” as recited in claim 1, as amended.

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Hence, Claim 1, as amended, distinguishes over Jie. Claims 3-6, dependent from Claim 1, distinguish over Jie for at least the reasons that Claim 1, as amended, distinguishes over Jie.

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CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. **245402008100**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: December 20, 2005

Respectfully submitted,

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